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10/801,048	03/15/2004	Mark Steven Wuthnow	C03-0028-000 C1099/0C117	1253
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STITES & HARBISON PLLC - CINGULAR			FIGUEROA, MARISOL	
1199 NORTH FAIRFAX ST				
SUITE 900				
ALEXANDRIA, VA 22314				
			ART UNIT	PAPER NUMBER
			2617	

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/801,048

Applicant(s)

WUTHNOW ET AL.

Examiner

Marisol Figueroa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/15/2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Claim Objections

2. Claims 1, 12, 14, and 16 objected to because of the following informalities:

(a) On line 1 of claim 1, replace "the" with --a-- before the word "location".

(b) On line 1 of claim 10, replace "the" with --a-- before the word "type".

(c) On lines 5 and 8 of claim 10, insert --type of-- before the word "technology" in order for the term "type of technology" to be consistent throughout the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 4 recites the limitations "said geographic location" and "said location information".

However, claim 1 only provides for "a location", it is unclear as to which location the limitation refers. Therefore, there is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1-3, 5-8, 10-19** are rejected under 35 U.S.C. 102(e) as being anticipated by MUHONEN et al. (US 2005/0014500 A1).

Regarding claim 1, Muhonen discloses a method for determining the location of a multi-technology wireless device (see Fig. 1; User Equipment 10) operating in a foreign technology mode, said method comprising the steps of:

obtaining a temporary dialable number for said multi-technology wireless device (see p.0045; i.e. the IMSI of the target UE is fairly characterized as a temporary dialable number);

determining the identity of the equipment serving said multi-technology wireless device using said temporary dialable number (see p.0046; i.e. address of the serving network element); and

obtaining the location of said multi-technology wireless device directly from said serving equipment (see p.0046, lines 17-22).

Regarding claim 2, Muhonen discloses the method of claim 1, wherein said step of obtaining a temporary dialable number for said multi-technology wireless device comprises:

requesting the identity of said serving equipment from a native technology serving equipment subscriber information database for said multi-technology wireless device (see Fig. 2; p.0045, lines 1-3; p.0046, lines 1-10; the GMLC request cellular routing information of the HLR/HSS to the database 60);

receiving a response from said subscriber information database and determining that the subscriber information database has provided the identity of a network conversion element instead

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of the identity of actual serving equipment (see Fig. 2; p.0045, lines 1-3; p.0046, lines 1-13; the database 60 returns the MCC/MNC that identifies the HLR/HSS that is fairly characterized as a network conversion element); and

requesting said temporary dialable number for said multi-technology device from said network conversion element (see p.0045, lines 13-21; p.0046, lines 10-17; the GMLC sends a MAP query to the concerned HLR/HSS, identified by the MCC/MNC, requesting the cellular identity of the user equipment, i.e. IMSI).

Regarding claim 3, Muhonen discloses the method of claim 2, wherein said step of determining the identity of said serving equipment comprises:

providing a temporary dialable number database which contains the identity of equipment associated with temporary dialable numbers (see Fig. 2; p.0037, lines 1-3; p.0046, lines 10-17; i.e. HLR/HSS mobile subscriber database); and

utilizing said temporary dialable number database to cross reference said temporary dialable number with the identity of the equipment serving said temporary dialable number (see p.0046, lines 10-17).

Regarding claim 5, Muhonen discloses a method of determining the identity of equipment serving a multi-technology wireless device (see Fig. 1; User Equipment 10) operating in a foreign technology mode, said method comprising:

obtaining a temporary dialable number for said multi-technology wireless device (see p.0045; i.e. the IMSI of the target UE is fairly characterized as a temporary dialable number);

providing a temporary dialable number database which contains the identity of equipment associated with temporary dialable numbers (see Fig. 2; p.0037, lines 1-3; p.0046, lines 10-17; i.e. HLR/HSS mobile subscriber database); and

utilizing said temporary dialable number database to cross reference said temporary dialable number with the identity of the equipment serving said temporary dialable number (see p.0046, lines 10-17).

Regarding claim 6, Muhonen discloses the method of claim 5, wherein said step of obtaining a temporary dialable number for said multi-technology wireless device comprises:

requesting the identity of said serving equipment from a native technology serving equipment subscriber information database for said multi-technology wireless device (see Fig. 2; p.0045, lines 1-3; p.0046, lines 1-10; the GMLC request cellular routing information of the HLR/HSS to the database 60);

receiving a response from said subscriber information database and determining that the subscriber information database has provided the identity of a network conversion element instead of the identity of actual serving equipment (see Fig. 2; p.0045, lines 1-3; p.0046, lines 1-13; the database 60 returns the MCC/MNC that identifies the HLR/HSS that is fairly characterized as a network conversion element); and

requesting said temporary dialable number for said multi-technology device from said network conversion element (see p.0045, lines 13-21; p.0046, lines 10-17; the GMLC sends a MAP query to the concerned HLR/HSS, identified by the MCC/MNC, requesting the cellular identity of the user equipment, i.e. IMSI).

Regarding claim 7, Muhonen discloses a method of initiating location signaling to equipment serving a multi-technology wireless device operating in a foreign technology mode, said method comprising;

obtaining a temporary dialable number for said multi-technology wireless device (see p.0045; i.e. the IMSI of the target UE is fairly characterized as a temporary dialable number);

determining the identity of the equipment serving said multi-technology wireless device by utilizing said temporary dialable number (see p.0046; i.e. address of the serving network element);

formatting a request for the geographic location of said multi-technology wireless device compatible with the identity of said serving equipment; and sending said location request directly to said serving equipment (see p.0046, lines 17-22; the GMLC invokes or requests the location of the user equipment to the serving equipment, i.e. cellular network serving the mobile).

Regarding claim 8, Muhonen discloses the method of claim 7, wherein said step of obtaining a temporary dialable number for said multi-technology wireless device comprises:

requesting the identity of said serving equipment from a native technology serving equipment subscriber information database for said multi-technology wireless device (see Fig. 2; p.0045, lines 1-3; p.0046, lines 1-10; the GMLC request cellular routing information of the HLR/HSS to the database 60);

receiving a response from said subscriber information database and determining that the subscriber information database has provided the identity of a network conversion element instead of the identity of actual serving equipment (see Fig. 2; p.0045, lines 1-3; p.0046, lines 1-13; the database 60 returns the MCC/MNC that identifies the HLR/HSS that is fairly characterized as a network conversion element); and

requesting said temporary dialable number for said multi-technology device from said network conversion element (see p.0045, lines 13-21; p.0046, lines 10-17; the GMLC sends a MAP query to the concerned HLR/HSS, identified by the MCC/MNC, requesting the cellular identity of the user equipment, i.e. IMSI).

Regarding claim 10, Muhonen discloses a method of identifying the type of technology in which a multi-technology wireless device operating in a foreign technology mode is operating, said method comprising the steps of:

obtaining a temporary dialable number for said multi-technology wireless device (see p.0045; i.e. the IMSI of the target UE is fairly characterized as a temporary dialable number);

providing a temporary dialable number database which contains the technology of equipment associated with temporary dialable numbers (see Fig. 2; p.0037, lines 1-3; p.0046, lines 10-17; i.e. HLR/HSS mobile subscriber database); and

utilizing said temporary dialable number database to cross reference said temporary dialable number with the technology of the equipment serving said temporary dialable number, which corresponds to the type of technology in which the multi-technology wireless device is operating (see p.0046, lines 10-17; i.e. cellular network serving the user equipment).

Regarding claim 11, Muhonen discloses the method of claim 10, wherein said step of obtaining a temporary dialable number for said multi-technology wireless device comprises:

requesting the identity of said serving equipment from a native technology serving equipment subscriber information database for said multi-technology wireless device (see Fig. 2; p.0045, lines 1-3; p.0046, lines 1-10; the GMLC request cellular routing information of the HLR/HSS to the database 60);

receiving a response from said subscriber information database and determining that the subscriber information database has provided the identity of a network conversion element instead of the identity of actual serving equipment (see Fig. 2; p.0045, lines 1-3; p.0046, lines 1-13; the database 60 returns the MCC/MNC that identifies the HLR/HSS that is fairly characterized as a network conversion element);

requesting said temporary dialable number for said multi-technology device from said network conversion element (see p.0045, lines 13-21; p.0046, lines 10-17; the GMLC sends a MAP query to the concerned HLR/HSS, identified by the MCC/MNC, requesting the cellular identity of the user equipment, i.e. IMSI).

Regarding claim 12, Muhonen discloses a system for determining the location of a multi-technology wireless device operating in a foreign technology environment, said system comprising:

a database (see Fig. 2; i.e. HLR/HSS) relating each temporary dialable number of a plurality of temporary dialable numbers to corresponding serving equipment serving said temporary dialable numbers (see p.0046, lines 10-17); and

a mobile position server in communication with said temporary dialable number database (see Fig. 2; p.0025; GMLC), said mobile position server operative to:

request and receive a temporary dialable number for said multi-technology wireless device (see p.0045, lines 13-21; p.0046, lines 10-17; the GMLC sends a MAP query to the concerned HLR/HSS, identified by the MCC/MNC, requesting the cellular identity of the user equipment, i.e. IMSI);

utilize said database to cross reference said temporary dialable number with the identity of the corresponding serving equipment (see p.0046, lines 10-17); and

obtain the location of said multi-technology wireless device directly from said corresponding serving equipment (see p.0046, lines 17-22).

Regarding claim 13, Muhonen discloses the system of claim 12 further comprising:

a network conversion element operative to translate signaling from a native technology protocol to a foreign technology protocol for said multi-technology wireless device (see p. 0045, lines 16-19; Fig. 2; i.e. HLR/HSS is fairly characterized as the network conversion element); and

a subscriber information database (see Fig.2; database 60) operating in the native technology environment of said multi-technology wireless device, said subscriber information database containing the address of the network conversion element associated with said multi-technology wireless device operating in a foreign technology environment (see p.0046, lines 1-10; the database 60 have cellular routing information, i.e. MCC/MNC address, of the HLR/HSS);

wherein said mobile position server is in communication with said network conversion element and said subscriber information database (see Fig. 2; i.e. GMLC);

wherein said mobile position server is operative to determine that the subscriber information database contains the address of said network conversion element (see p.0046, lines 1-10); and

wherein said mobile position server obtains said temporary dialable number for said multi-technology wireless device from said network conversion element (see p.0045, lines 13-21; p.0046, lines 10-17; the GMLC sends a MAP query to the concerned HLR/HSS, identified by the MCC/MNC, to obtain the cellular identity of the user equipment, i.e. IMSI).

Regarding claims 14 and 16, the claims are rejected over the same reasons stated about claim 1 as they recite the same limitations of claim 1. See remarks about claim 1 above.

Regarding claim 15, the claim is rejected over the same reasons stated about claim 2 as it recites the same limitations of claim 2. See remarks about claim 2 above.

Regarding claim 17, Muhonen discloses a computer readable medium having computer executable instructions for performing a method of determining the identity of equipment serving a multi-technology wireless device operating in a foreign technology mode comprising:

obtaining a temporary dialable number for said multi-technology wireless device (see p.0045; i.e. the IMSI of the target UE is fairly characterized as a temporary dialable number);

providing a database which contains the identity of equipment associated with temporary

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dialable numbers (see Fig. 2; p.0037, lines 1-3; p.0046, lines 10-17; i.e. HLR/HSS mobile subscriber database); and

utilizing said database to cross reference said temporary dialable number with the identity of the equipment serving said temporary dialable number (see p.0046, lines 10-17).

Regarding claim 18, Muhonen discloses a computer readable medium having executable instructions for performing a method of initiating location signaling to equipment serving a multi-technology wireless device operating in a foreign technology mode comprising:

requesting and receiving a temporary dialable number for said multi-technology wireless device (see p.0045; i.e. the IMSI of the target UE is fairly characterized as a temporary dialable number);

determining the identity of the equipment serving said multi-technology wireless device by utilizing said temporary dialable number (see p.0046; i.e. address of the serving network element);

formatting a request for the geographic location of said multi-technology wireless device compatible with the identity of said serving equipment; and sending said location request directly to said serving equipment (see p.0046, lines 17-22; the GMLC invokes or requests the location of the user equipment to the serving equipment, i.e. cellular network serving the mobile).

Regarding claim 19, Muhonen discloses a computer readable medium having executable instructions for performing a method of identifying the type of technology in which a multi-technology wireless device operating in a foreign technology mode is operating comprising:

requesting and receiving a temporary dialable number for said multi-technology wireless device (see p.0045; i.e. the IMSI of the target UE is fairly characterized as a temporary dialable number);

providing a data source which relates the technology of equipment associated with each temporary dialable number of a plurality of temporary dialable numbers (see Fig. 2; p.0045, lines 1-3; p.0046, lines 1-13; the database 60 returns the MCC/MNC, i.e. data source, that identifies the HLR/HSS that contains the cellular identity or IMSI of user equipments); and

utilizing said data source to cross reference said temporary dialable number with the technology of the equipment serving said temporary dialable number, which corresponds to the type of technology in which the multi-technology wireless device is operating (see p.0046, lines 10-17).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 4 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over MUHONEN et al. in view of NAGHIAN et al. (US 2003/0148774 A1).

Regarding claim 4, Muhonen discloses the method of claim 3, however fails to particularly disclose wherein said step of obtaining the location of said multi-technology wireless device comprises: sending said location request directly to said serving equipment; and receiving said location information from said serving equipment (see p.0046, lines 17-22; the GMLC invokes or requests the location of the user equipment to the serving equipment, i.e. cellular network serving the mobile, and the GMLC receives a response from the cellular network which forwarded to the LCS service).

Muhonen fails to particularly disclose wherein the step of obtaining the location of said multi-technology wireless device comprises determining the level of accuracy desired for said location information; formatting a request for the geographic location of said multi-technology wireless device which provides said desired accuracy and is compatible with said serving equipment.

However, Naghian teaches a method for locating a mobile station in a telecommunications system and suggests that a location system may provide different location service accuracy classes wherein the method of location determination depends on the requested accuracy. An LCS client may specify or negotiate a minimum level of quality, such as minimum accuracy, in a location request, and the GMLC determines the required accuracy level upon receiving the LCS request and selects an appropriate method for the location determination, then it requests the location information to the access network defining the accuracy that is required, i.e. format, (see p.0044, lines 27-32; p.0045-0048). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to determine the level of accuracy desired for said location information and formatting the location request according to the desired accuracy, as suggested by Naghian, because different applications demand different levels of positioning accuracy and the method of location determination used depends on the requested accuracy.

Regarding claim 9, Muhonen discloses the method of claim 7, but fail to disclose wherein said formatting step comprises determining the level of accuracy desired for said location information; and formatting said location request such that it provides said accuracy desired for said location information.

However, Naghian teaches a method for locating a mobile station in a telecommunications system and suggests that a location system may provide different location service accuracy classes wherein the method of location determination depends on the requested accuracy. An LCS client

may specify or negotiate a minimum level of quality, such as minimum accuracy, in a location request, and the GMLC determines the required accuracy level upon receiving the LCS request and selects an appropriate method for the location determination, then it requests the location information to the access network defining the accuracy that is required, i.e. format, (see p.0044, lines 27-32; p.0045-0048). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to determine the level of accuracy desired for said location information and formatting the location request according to the desired accuracy, as suggested by Naghian, because different applications demand different levels of positioning accuracy and the method of location determination used depends on the requested accuracy.

Prior Art of Record

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) LUNDIN (US 2001/0003093 A1) teaches a communication system that communicates position information of roaming mobile stations.

(b) VARONEN et al. (US 2004/0137900 A1) teaches a method and system for locating a mobile terminal.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marisol Figueroa whose telephone number is (571) 272-7840. The examiner can normally be reached on Monday Thru Friday 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Marisol Figueroa
Art Unit 2617


LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER